



AirNav Radarbox db3 Editing Tool

V1.0.1

User's Manual

The AirNav Radarbox db3 Editing Tool can be run using the Java Runtime Environment (JRE). The JRE exists for most operating systems, including Windows, Mac and Linux. The JRE can be downloaded from the Java website (www.java.com).

The AirNav Radarbox db3 Editing Tool programme is provided free for private, non-commercial use.

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Manual Version 1.0.1 current as of September 2012

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Text in Red is a WARNING to users. Text in Blue is for INFORMATION to users.

1 Introduction

IN ORDER TO RETAIN THE INTEGRITY OF USERS CURRENT .DB3 FILES, ALWAYS WORK WITH COPIES OR BACKUPS OF THE NAVDATA.DB3 OR MYLOG.DB3 FILES. NEVER USE THE .DB3 FILES DIRECTLY IN THE AIRNAV SYSTEMS RADARBOX PROGRAMME FOLDER IN THIS PROGRAMME.

The AirNav Radarbox db3 Editing Tool can be used to edit any of the SQL database tables that make up the NavData.db3 or MyLog.db3 file in the user-friendly environment of Microsoft Excel.

Please note that to edit these tables users will need Microsoft Office 2007 or later to take advantage of the increased number of rows that MS Excel 2007 offers. Any version older than this will truncate tables and data will be lost.

The programme follows three basic processes:

1. Extracts the SQL database tables from the NavData.db3 or MyLog.db3 files into individual MS Excel files.
2. Allows you to edit any of the tables extracted in (1) above through the MS Excel 2007 or later environment.
3. Compiles the files edited in (2) above into new NavData.db3 or MyLog.db3 files.

2 What Tables Constitute the .db3 Files?

2.1 NavData.db3 File

When extracted, the six (6) tables that are produced as individual MS Excel files are the following:

1. ACTYPE (Aircraft types and their associated ICAO codes).
2. AIRCRAFT (Mode-S codes and aircraft registrations).
3. AIRLINES (Airlines and their associated ICAO and IATA codes).
4. AIRPORTS (Airports and their associated GPS coordinates).
5. ANLV_PHOTO_ASDI (Redundant at present).

6. ROUTES (Routes associated with various Flight Numbers).

2.2 MyLog.db3 File

When extracted, the four (4) tables that are produced as individual MS Excel files are the following:

1. AIRCRAFT (Aircraft details and first / last times recorded).
2. FLIGHTS (Start and end time / position of Mode-S codes and aircraft registrations).
3. FLIGHTSOLD (Start and end time / position of Mode-S codes and aircraft registrations).
4. SESSIONS (Information related to the sessions and message counts recorded).

3 Installing the Programme

3.1 Installer Package

- The Installer Package option is provided for user specific installations of the programme on Windows Operating Systems.
- Download the Installer Package [AnrbDb3Tool.msi](http://www.earthimage.co.za/AnrbDb3Tool) from the website www.earthimage.co.za/AnrbDb3Tool and run the installer locally on your PC.
- The Installer Package will create the following:
 - o A Start Menu folder called **My db3 Editing Tools** with links to the NavData.db3 and MyLog.db3 Editing Tools and the User's Manual.
 - o Desktop Shortcuts to the NavData.db3 and MyLog.db3 Editing Tools.

3.2 Zip File

- The Zip File option is provided for installations of the programme that can not run the Installer Package as described in 3.1 above.
- Download the Zip File [AnrbDb3Tool.zip](http://www.earthimage.co.za/AnrbDb3Tool) from the website www.earthimage.co.za/AnrbDb3Tool and extract the contents to the folder **C:/AnrbDb3Tool** on your hard drive.
- **If this is a programme update, ensure that the entire contents of the folder C:/AnrbDb3Tool are deleted first before extracting the new files.**

- In order for the latest updates and shortcuts to be installed on your computer delete all temporary Java files relevant to this programme (See Appendix E):
 - For Windows XP:
 - Go to Windows Start and click on Control Panel.
 - Open the Java (32 Bit) Control Panel by clicking on the Java icon.
 - Under the General tab click on View in the Temporary Internet Files section at the bottom of the window and delete the relevant programmes.
 - For Windows 7:
 - Go to Windows Start and type in Java in the "Search programs and files" box and select Java (32 Bit).
 - Under the General tab click on View in the Temporary Internet Files section at the bottom of the window and delete the relevant programmes.
 - Delete previous Desktop Shortcuts and Start Menu folders (if applicable).
- Locate the [NavDatadb3Tool.jar](#) or [MyLogdb3Tool.jar](#) files in the folder [C:/AnrbDb3Tool](#) and right click to create a Shortcuts to your desktop.
- Right click either of the shortcuts on your desktop and change the icons to those as provided in the zip file.

4 Using the Programme

4.1 Extracting Tables from the .db3 Files to MS Excel

- In the "Extract" window of the programme, click on "Browse ..." to navigate to the Source .db3 folder where the latest copy of the NavData.db3 or MyLog.db3 files have been placed and select the file.
- In the "Extract" window of the programme, click on "Browse ..." to navigate to the Tables Folder where the MS Excel tables will be extracted to and select the folder.
- Check the tick box "Open folder when complete" to automatically open the folder where the extraction process will extract the six MS Excel tables to.
- Click on the "Go" button to begin the extraction process. A progress bar is situated at the bottom of the main programme window to give an indication of

extraction progress. The main programme window will become greyed out during this process and users will not be able to perform any functions until the process is complete. Please wait for the progress bar to show complete before continuing.

- **Extraction to MS Excel is usually very quick taking less than 30 seconds (depending on the speed of your computer).**

4.2 Editing Extracted Tables in MS Excel

- Once the tables have been extracted from the NavData.db3 or MyLog.db3 files users can edit any of the files in MS Excel as would be normal.
- Common functions include "Find and Replace"; "Copy"; "Delete" and "Sort" whilst more complex functions include finding and removing duplicate entries.
- When users have finished editing any of the tables, click the "Save" button to write the changes to disk. **Do not use "File Save As ..." as this will change the format of the MS Excel files and cause data loss or file corruption during the compilation process.**
- **Do not change the column order or column headings in any of the extracted tables as this will lead to a corrupt .db3 file being produced on compilation.**

4.3 Compiling MS Excel Tables into New .db3 Files

- Ensure that MS Excel is closed before proceeding with the compilation process.
- In the "Compile" window of the programme, click on "Browse ..." to navigate to the Tables Folder where the extracted MS Excel tables are listed and select the folder.
- In the "Compile" window of the programme, click on "Browse ..." to navigate to the Output .db3 folder where a new .db3 file will be created.
- **Make sure that the extension .db3 is specified when creating a new file as this programme does not automatically fill in the extension (e.g. NewNavData.db3 or NewMyLog.db3).**
- Check the tick box "Open folder when complete" to automatically open the folder where the compilation process will compile a new .db3 file to.
- Click on the "Go" button to begin the compilation process. A progress bar is situated at the bottom of the main programme window to give an indication of compilation progress. The main programme window will become greyed out

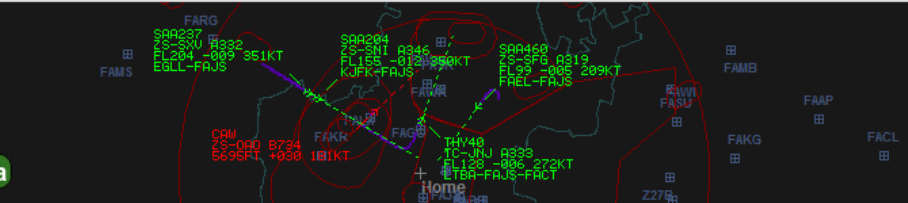
during this process and users will not be able to perform any functions until the process is complete. Please wait for the progress bar to show complete before continuing.

- **Compilation takes longer than extraction and can take up to 3 minutes to complete (depending on the speed of your computer).**
- **Users must remember to rename the newly compiled .db3 file to NavData.db3 or MyLog.db3 before copying it back to the AirNav Systems RadarBox programme folder following compilation.**
- **If the entire process is followed through from start to finish without making any changes to the tables, the newly compiled NavData.db3 and MyLog.db3 files will be smaller than the original file. The compilation process in no way removes any data and the smaller file size is due to the nature of the programme and how it operates.**

APPENDIX A – PROGRAMME FRONT-ENDS

NavData.db3 Editing Tool – V1.0

File Help

EXTRACT

Stage 1

From

Source .db3 C:\Data\Temp\Source DB3\NavData.db3 Browse...

To

Tables Folder C:\Data\Temp\Output Tables Browse...

Open Folder when complete ☐

Extract the 6 SQL database tables from the NavData.db3 file into individual MS Excel files

Go

Stage 2

From

Tables Folder C:\Data\Temp\Output Tables Browse...

To

Output .db3 C:\Data\Temp\Output DB3\NewNavData.db3 Browse...

Open Folder when complete ☐

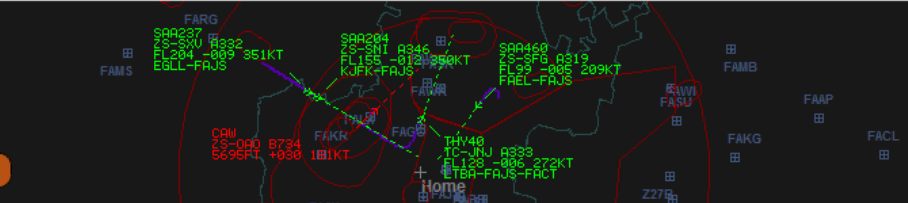
Compile the edited MS Excel files into a new NavData.db3 file

Go

No Process Running

MyLog.db3 Editing Tool – V1.0

File Help

EXTRACT

Stage 1

From

Source .db3 C:\Data\Temp\Source DB3\MyLog.db3 Browse...

To

Tables Folder C:\Data\Temp\Output Tables Browse...

Open Folder when complete ☐

Extract the 4 SQL database tables from the MyLog.db3 file into individual MS Excel files

Go

Stage 2

From

Tables Folder C:\Data\Temp\Output Tables Browse...

To

Output .db3 C:\Data\Temp\Output DB3\NewMyLog.db3 Browse...

Open Folder when complete ☐

Compile the edited MS Excel files into a new MyLog.db3 file

Go

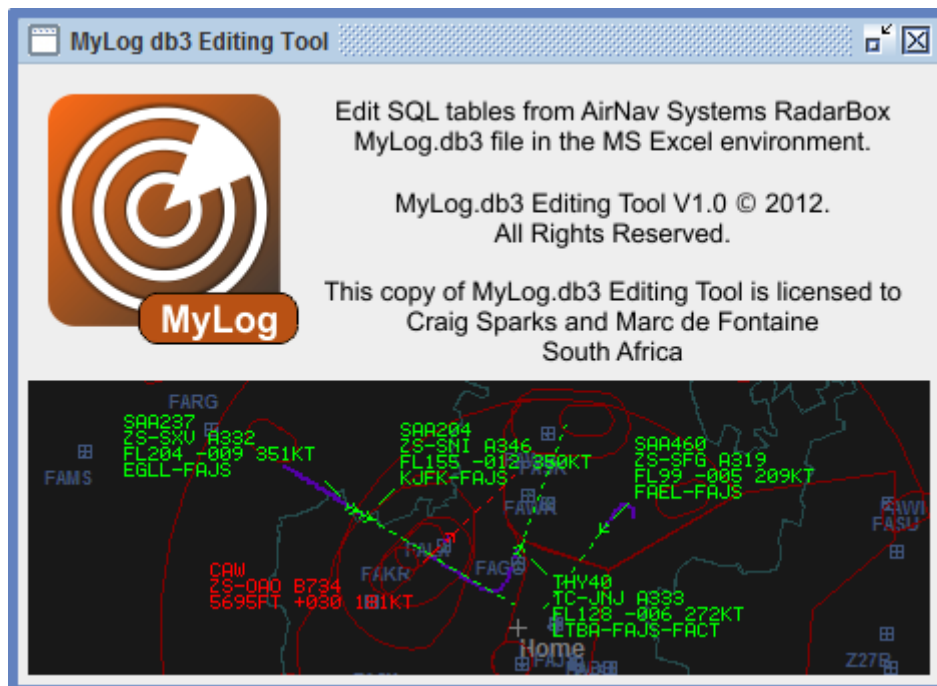
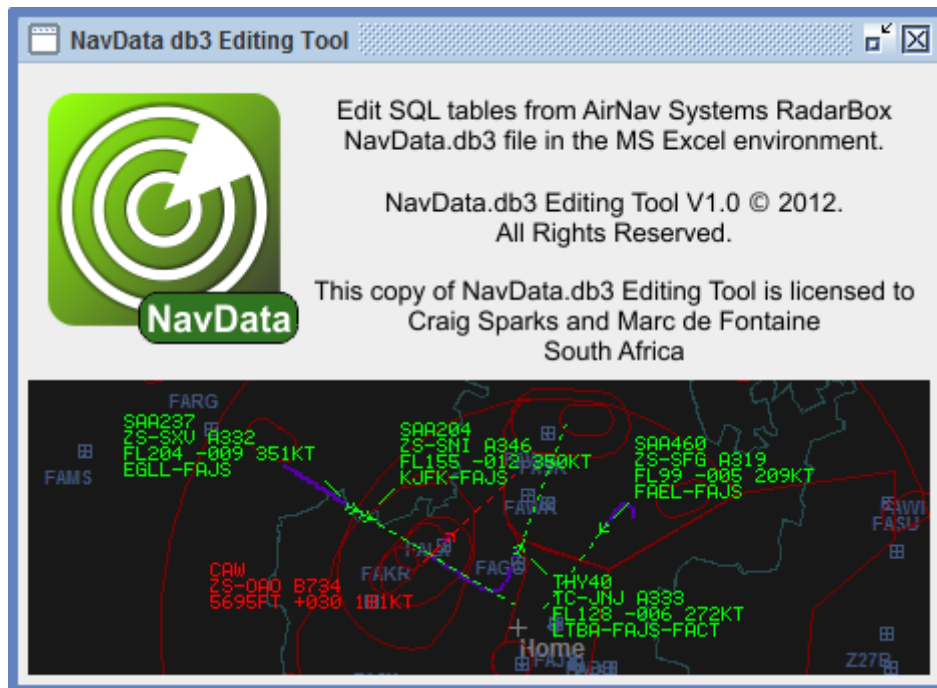
No Process Running

The NavData.db3 and MyLog.db3 Editing Tools front-end is divided into two sections.

The top section is the **EXTRACTION** part of the programme where the MS Excel tables are Extracted from the .db3 file. Here the user specifies the folder relating to the Source as to where the .db3 file is located and the folder to where the Tables will be Extracted to.

The bottom section is the **COMPILATION** part of the programme where the MS Excel tables are Combined into a new .db3 file. Here the user specifies the folder relating to the Source as to where the MS Excel Tables are located and the folder to where the new .db3 file will be Combined to.

APPENDIX B - COPYRIGHTS



APPENDIX C - DESCRIPTION OF THE NAVDATA.DB3 TABLE HEADERS

AIRCRAFT TABLE

MS - Mode-S Code
AR - Aircraft Registration
AT - Aircraft Type (ICAO Code)
AN - Aircraft Name (make and model)
AC - Aircraft Company (Owner)
CN - Constructor's Number / Line Number
PT - Photographer (first)
LK - Link to first photo
PT2 - Photographer (second)
LK2 - Link to second photo
CO - ?

ACTYPE TABLE

AT - Aircraft Type (ICAO Code)
AN - Aircraft Name (make and model)
AG - Aircraft Group (landplane, amphibian, helicopter etc)

AIRLINES TABLE

CN - Company (airline/operator) name
C3 - ICAO Code
CM - Company Type
C2 - IATA Code

AIRPORTS TABLE

p4 - ICAO Code
p3 - IATA Code
pn - Airport Name
pc - Airport Name
ps - State or Province
pt - Country
pm - ?
pa - Centre point Latitude
po - Centre point Longitude (used for route lines)

ROUTES TABLE

FN - Flight Number
NO - Origin Airport (ICAO Code)
ND - Destination Airport (ICAO Code)
NV - Via Airport (ICAO Code)
CH - Date and time record was changed (data will be refreshed 6 months after this date when flight is received again)

APPENDIX D - DESCRIPTION OF THE MYLOG.DB3 TABLE HEADERS

AIRCRAFT TABLE

Comment - ?

LastTime - Last time that the ModeS was recorded

FirstTime - First time that the ModeS was recorded

AircraftTypeLong - Full aircraft type description

AircraftTypeSmall - ICAO short code aircraft designator

Airline - Name of the airline

ModeS - ModeS code recorded

ModeSCountry - Country associated with recorded ModeS code

Registration - Aircraft registration associated with the recorded ModeS code

ADSB - Recorded as yes or no

FLIGHTS TABLE

Route - Description of the route using ICAO codes for departure and arrival airports

Callsign - Callsign used by the aircraft either as flight number or registration

EndTime - The last recoded time that the ModeS code was seen on the system

ModeS - ModeS code recorded

MsgCount - Number of messages received from a ModeS code

Registration - Registration associated with the recorded ModeS code

Session - ?

StartTime - The last recoded time that the ModeS code was seen on the system

StartPosition - First GPS position recorded

EndPosition - Last GPS position recorded

StartAltitude - First altitude recorded

EndAltitude - Last altitude recorded

StartGS - First ground speed recorded

EndGS - Last ground speed recorded

FLIGHTSOLD TABLE

Route - Description of the route using ICAO codes for departure and arrival airports

Callsign - Callsign used by the aircraft either as flight number or registration

EndTime - The last recoded time that the ModeS code was seen on the system

ModeS - ModeS code recorded

MsgCount - Number of messages received from a ModeS code

Registration - Registration associated with the recorded ModeS code

Session - ?

StartTime - The last recoded time that the ModeS code was seen on the system

StartPosition - First GPS position recorded

EndPosition - Last GPS position recorded

StartAltitude - First altitude recorded

EndAltitude - Last altitude recorded

StartGS - First ground speed recorded

EndGS - Last ground speed recorded

SESSIONS TABLE

MsgCount - ?

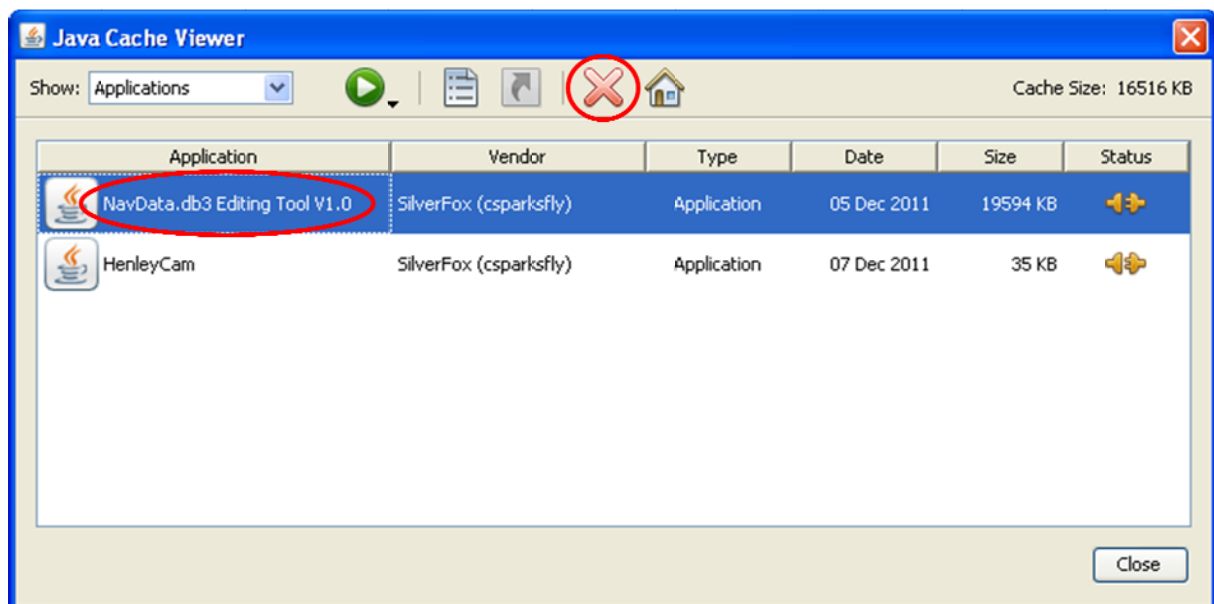
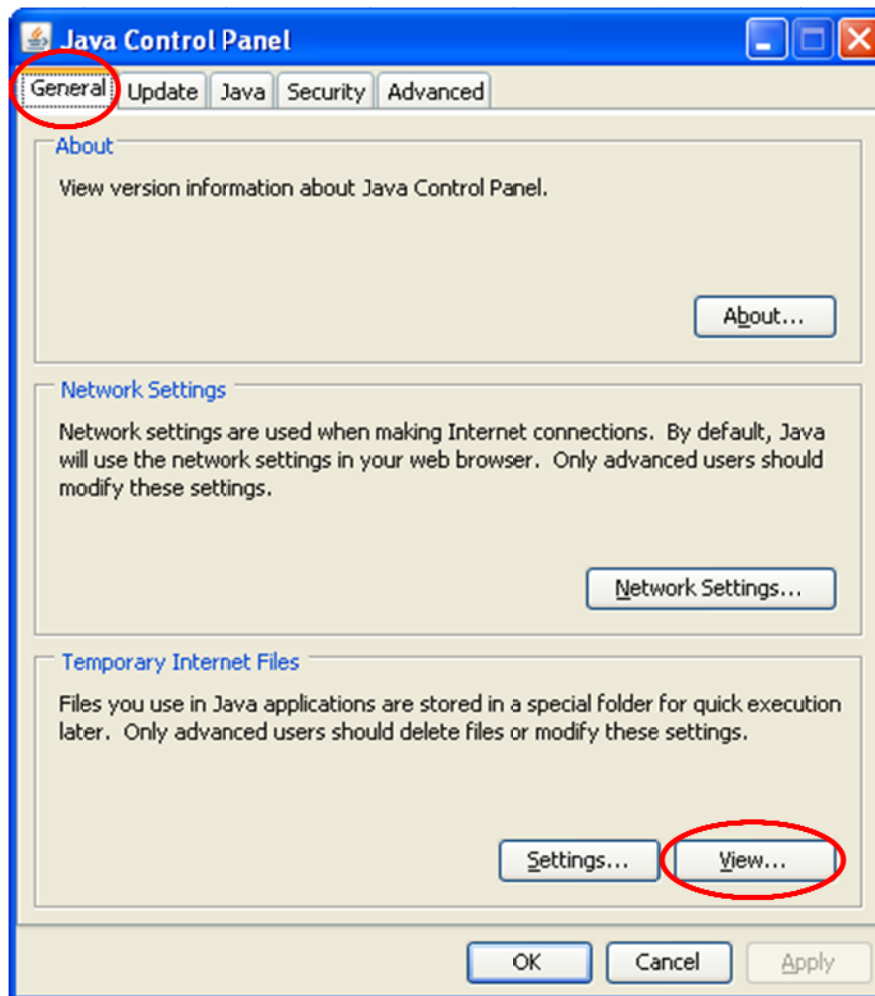
EndTime - ?

ID - ?

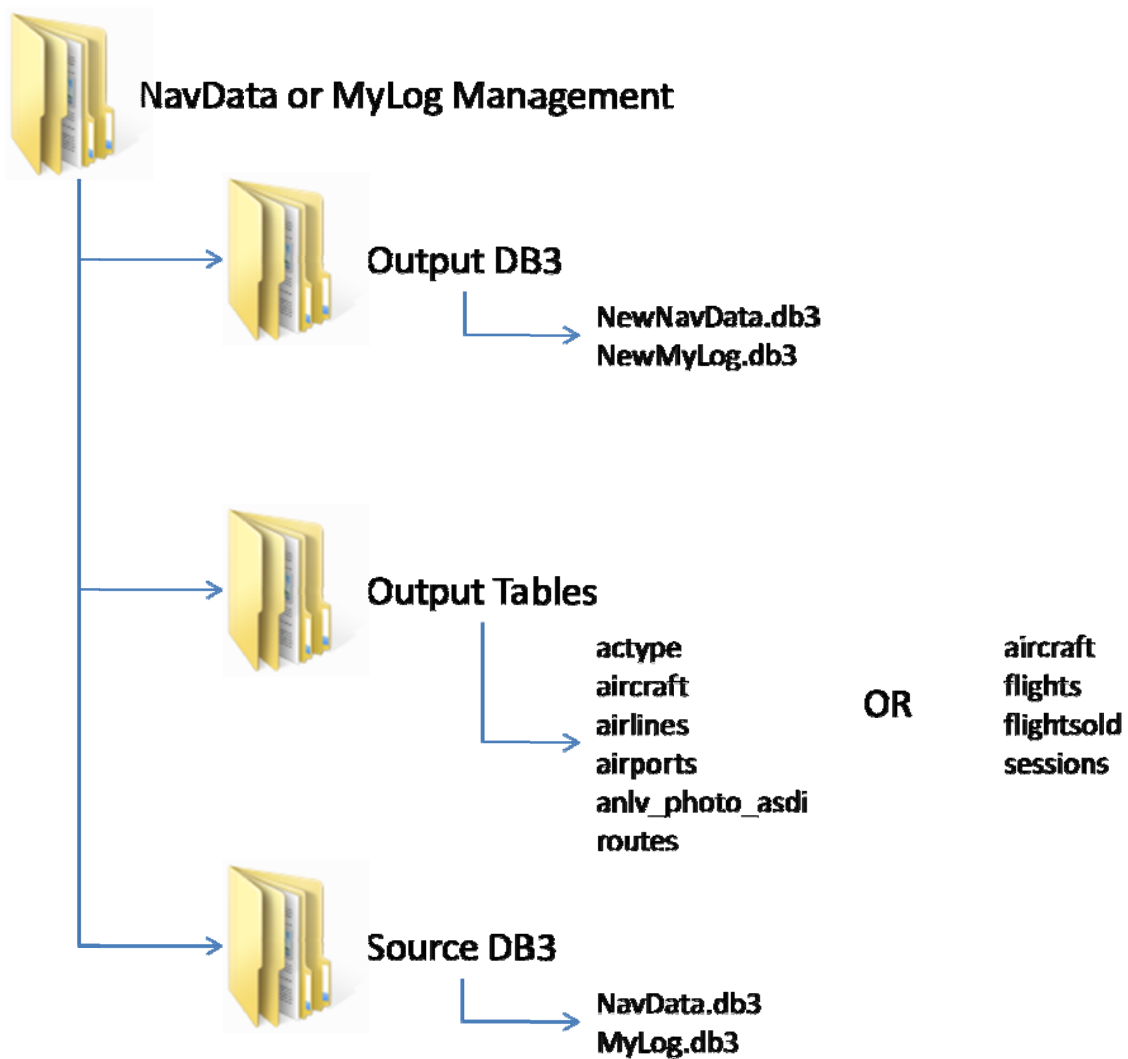
Location - ?

StartTime - ?

APPENDIX E - DELETE TEMPORARY JAVA FILES



APPENDIX F - SUGGESTED FOLDER STRUCTURE



The above is a suggested folder structure to use in order to keep different INPUT files and folders separate from OUTPUT files and folders.